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EXAMINER
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KERNS, KEVIN P

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/811,520  
Filing Date: March 29, 2004  
Appellant(s): CIGELSKE, JAMES J.

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Kevin R. Rosin  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed January 31, 2008 appealing from the Office action mailed April 25, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,129,843

BOWSKY ET AL.

7-1992

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-11 and 38-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowsky et al. (US 5,129,843).

Bowsky et al. disclose a plastic shield (8) for preventing arcing around an electrical stud (7), made of plastic material (figures; and col. 3, lines 45-50, col. 4, lines 12-31).

Bowsky et al. fail to teach the shield comprising a generally inverted U-shaped configuration adapted to at least partially surround the electrical stud; the shield

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constructed of a non-conductive material; the inverted U-shaped shield having a first planar side having an upper edge; a second planar side extending inwardly from the upper edge of the first planar side and having an inner edge; the second planar side oriented in a plane generally perpendicular to the plane of the first planar side; a third planar side extending from the inner edge of the second planar side; the third planar side oriented in a plane generally parallel to the plane of the first planar side to form the inverted U-shape; and the thickness about 10-15 thousandths of an inch.

However, Bowsky et al disclose that the shape and number of wall shields can be varied (col. 4, lines 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the appellant's invention was made to have modified the shape of the shield to conform to the arcing directions. Furthermore, since appellant is claiming the shield, it is capable of being installed on a welding apparatus with a plurality of ribs attached to it.

#### **(10) Response to Argument**

With regard to the appellant's remarks/arguments on pages 5-8 of the Appeal Brief, the appellant has provided arguments addressing the 35 USC 103(a) rejections of claims 9-11 and 38-43 in view of Bowsky et al., which is the only ground of rejection presented in the brief. In the ARGUMENT section, the appellant has addressed independent claim 9 (throughout pages 5-7 of the Brief), and has separately addressed dependent claims 11, 38, 39, and 40-43 (throughout pages 7 and 8 of the Brief).

Regarding the appellant's arguments (throughout pages 5-7 of the Brief) that address independent claim 9, Bowsky et al. (as best shown in Figures 1 and 2) disclose a plastic shield (8) -- (8) instead of (98) -- as set forth in the 1<sup>st</sup> paragraph under the 7. ARGUMENT section of the Brief, for preventing arcing around an electrical stud (three electrical conductor pins 7). Although the shield 8 surrounds three pins 7, any of the (single) pins 7 is an "electrical stud", and the use of the shield for a welding apparatus is no more than an "intended use" of the plastic shield. Accordingly, mating connectors within the plastic shield 8 (Figure 1) are adapted to connect to respective pins 7.

Throughout pages 5-7 of the Brief, one of the appellant's major arguments is that the shape of the appellant's shield 50 (of appellant's Figure 4, and when use within a welding apparatus in appellant's Figure 2) defines over the shield 8 of Bowsky et al. The examiner respectfully disagrees, as Bowsky et al. disclose a "generally inverted U-shaped configuration" of plastic shield 8 (best shown in Figure 1 of Bowsky et al.). Importantly, the relative orientations of the "tapering" region of the shield 8 (whether facing up, down, left, or right) do not alter the property that this shield 8 is of "generally" U-shape, with the "U" lying on its left side in the figure. Regarding the various claimed planar sides and edges of the appellant's shield, the examiner respectfully disagrees with the appellant from the point of view that these planar sides and edges are allegedly not disclosed and/or suggested by Bowsky et al. Although the examiner agrees that the shield of the appellant's Figure 4 is configured in a shape rather different from that of Figure 1 of Bowsky et al., such planar sides and edges are clearly present (and are individually assignable despite the absence of reference numbers in the shield 8 of

Bowsky et al.). In this instance, the structural elements of independent claim 9 (inclusive of reference numbers in appellant's Figure 4, for clarity) are as follows:

*"the first planar side 52 having an upper edge 54" corresponds to the (unlabelled) rectangular upper portion of shield 8 of Figure 1 of Bowsky et al., of which the rectangular area has four edges;*

*"the second planar side 58 extending inwardly from the upper edge 54 of the first planar side 52 and having an inner edge 60, the second planar side 58 oriented in a plane generally perpendicular to the plane of the first planar side 52" corresponds to the "generally U-shaped" plane (to which the line from reference number 8 extends/contacts in Figure 1), of which this "generally U-shaped plane" has three straight edges and edges adjacent the "tapering region", with the first and second planar sides of Bowsky et al. being perpendicular to each other; and*

*"a third planar side 62 extending from the inner edge 60 of the second planar side 58, the third planar side 62 oriented in a plane generally parallel to the plane of the first planar side to form the inverted U-shape" corresponds to the rectangular lower portion of shield 8 of Figure 1 (hidden from view since this planar side is located underneath/below reference number 8), such that this rectangular lower portion (third planar side) and the rectangular upper portion (first planar side) are parallel to each other, with the "inner edge" of the second planar side of Bowsky et al. being the edge that is shared with the second and third planar sides (corresponding to shared edge between the second planar, or "U-shaped" plane, and the third planar, or bottom, plane of the shield 8).*

As a result of the arrangement of various planar sides and edges of Bowsky et al. set forth above, the plastic shield 8 is advantageous for preventing harmful arcing between one or more electrical conductor pins 7, as Bowsky et al. disclose/suggest. Furthermore, one of ordinary skill in the art would have recognized that high voltage arcing, if not prevented, would potentially cause significant harm to an operator upon contact. Thus, the plastic insulating shield of Bowsky et al. (when engaged with the electrical conductor pins 7, all of three of which would be insulated equivalently) would prevent harm to the operator. Furthermore, Bowsky et al. disclose that shape and number of wall shields can be varied (col. 4, line 25) in accordance with the terminal assembly pins, in order to conform to arcing directions. Therefore, it would have been obvious to one of ordinary skill in the art to have modified the shape of the shield to conform to the arcing directions. In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (as set forth in the paragraph bridging pages 6 and 7 of the Brief), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Regarding the appellant's arguments (throughout pages 5-7 of the Brief) that address dependent claims 11, 38, 39, and 40-43, it is noted that Bowsky et al. disclose



and/or suggest these features in the discussion that follows. With regard to claim 11 (see page 7 of Brief), Bowsky et al. disclose a plastic material, which would comprise a thermoplastic film (i.e. smooth covering) on its surface to protect the underlying plastic body. Regarding the claimed range of thicknesses for use in protecting the underlying plastic body of the plastic shield 8 of Bowsky et al., it would have been obvious to one of ordinary skill in the art at the time of the invention to have chosen the instantly claimed ranges through process optimization, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See In re Boesch, 205 USPQ 215 (CCPA 1980). With regard to claim 38 (see paragraph bridging pages 7 and 8 of Brief), the shield 8 of Bowsky et al. (which includes first, second, and third planar sides affixed to an internal surface of a high voltage apparatus (see Figure 1), would have been capable of being used with a welding apparatus, for which one of ordinary skill in the art would have recognized, since a welding apparatus generates high voltages. With regard to claim 39 (see page 8 of Brief), Bowsky et al. disclose the “plurality of ribs” in the form of the mating, cup-shaped body 3 of the terminal assembly 2 (Figure 1) for attachment with the cylindrical wall shields 14 of the plastic shield 8. This attachment shows a “plurality of ribs” in the form of protrusions that determine the precise positioning of the connection when engaged. With regard to claims 40-43, of which the appellant has only provided an argument addressing claim 40 (see the last paragraph on page 8 of Brief), the first planar side of Bowsky et al. (top rectangular region of the shield 8 of Figure 1) is positioned intermediate an electrical stud (one or more of the conductive pins 7) and the

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housing of the apparatus while in the connected/engaged position of pins 7 and shield

8. As a result, when the shield 8 of Bowsky et al. is in operation (connected), this limitation of claim 40 is met by Bowsky et al.

In summary, the 35 USC 103(a) rejections over Bowsky et al. render obvious the claimed features of claims 9-11 and 38-43, and it is the examiner's position that the 35 USC 103(a) rejections of these claims be maintained.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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